

I. INTRODUCTION

This position is located in the Fiber and Testing Laboratory, Clemson, South Carolina, where fiber, spinning, weaving and chemical finishing tests are made on cotton from all cotton growing sections of the United States and from foreign countries.

The major functions of the laboratory are the testing of cotton fibers and yarns; the manufacture of small samples of cotton into yarn, cord, and fabric; the chemical finishing of cotton and cotton products; the quality evaluation of cotton through results from these tests; and to suggest practical applications of the findings to cotton breeders, textile men and others for practical use.

II. DUTIES AND RESPONSIBILITIES

The incumbent of this position performs yarn, fabric, and fiber tests and other related testing functions within the laboratory. This involves a detailed knowledge of the testing methods and techniques required for the various tests and general understanding of the mechanisms and principles of operation of complicated instruments and machines.

A. Yarn Laboratory: Identifies and labels samples, giving careful attention to details to insure that they are not mixed or crossed and to store them when the tests are completed; prepares and conditions skeins of yarn from each lot of cotton spun; prepares yarn grading boards; measures nep content of ginned cotton lint; breaks skeins on Scott Tester to obtain strength and calculate size by use of a calculator and reference chart; prepares and performs fabric sample tests; measures color of cotton yarn.

B. Fiber Laboratory: Extracts pinches of cotton and blends them for use as test specimens; checks, adjusts, balances, and calibrates test instruments. Conducts fiber length tests by the Fibrograph method; fiber strength tests by the flat bundle method at both 0 and 1/8 inch gauge; fiber tests of fineness and maturity in combination by the Micronaire method.

III. JOB CONTROLS

A. Responsibility for the Work of Others: None

B. Supervision and Guidance Received: The incumbent is under the immediate supervision of the Supervisory Physical Science Aid and under the general supervision of the Laboratory Director. Specific tests or functions are assigned, but they are conducted independently except for unusual cases. Advice and assistance are available and are given when requested or when the supervisor detects the need for such assistance.